

WHAT IS CLAIMED IS:

1. A cask comprising:

a basket having square shaped cross section, wherein cutting sections are provided in both edges of rectangular plate-like members having a neutron absorbing performance and said plate-like members are alternately piled up vertically in such a manner as to mutually insert said cutting sections to each other;

a barrel main body which shields γ rays and forms an inner side of a cavity in a shape aligning with said basket; and

a neutron shielding body arranged in an outer periphery of said barrel main body,

wherein a spent fuel assembly is stored in each of cells of the basket inserted in said cavity.

2. The cask according to claim 1, wherein a part within said cavity is formed in a shape aligning with the outer shape of said basket.

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3. The cask according to claim 1, wherein a dummy pipe is further provided, a portion having a surplus thickness of the barrel main body within said cavity is aligned with said dummy pipe, and said dummy pipe is inserted within the cavity together with the basket in a state of being in contact

with said plate-like member.

4. The cask according to claim 3, wherein both ends of said dummy pipe are further closed.

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5. The cask according to claim 4, wherein a heat conduction medium such as a helium gas or the like is sealed within the dummy pipe having both ends closed.

10 6. A cask comprising:

a basket having square shaped cross section, wherein a plurality of cells having a neutron absorbing performance and storing spent fuel assemblies are integrally cast;

15 a barrel main body which shields γ rays and forms an inner side of a cavity in a shape aligning with said basket; and

a neutron shielding body arranged in an outer periphery of said barrel main body,

20 wherein a spent fuel assembly is stored in each of cells of the basket inserted in said cavity.

7. The cask according to claim 6, wherein a part within said cavity is formed in a shape aligning with the outer shape of said basket.

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8. . The cask according to claim 7, wherein a dummy pipe is further provided, a portion having a surplus thickness of the barrel main body within said cavity is aligned with said dummy pipe, and said dummy pipe is inserted within the
5 cavity together with the basket in a state of being in contact with said plate-like member.

9. The cask according to claim 8, wherein both ends of said dummy pipe are further closed.

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10. The cask according to claim 9, wherein a heat conduction medium such as a helium gas or the like is sealed within the dummy pipe having both ends closed.

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11. A cask wherein an inner side of a cavity in a barrel main body having a neutron shielding body in an outer periphery and shielding γ rays is formed in a shape corresponding to an outer shape of a basket having a square cross sectional shape constituted by a plurality of square
20 pipes having a neutron absorbing performance in a state of inserting the square pipes within the cavity, a hollow dummy pipe having both ends closed is provided, a portion having a surplus thickness of the barrel main body within said cavity is formed in a shape corresponding to said dummy pipe, said
25 dummy pipe is inserted within the cavity together with the

basket in a state of being in contact with said square pipe, and a spent fuel assembly is received and stored within each of cells of the basket inserted within said cavity.

- 5 12. The cask according to claim 11, wherein a heat conduction medium such as a helium gas or the like is sealed within the dummy pipe having both ends closed.